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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/905,198	07/16/2001	Johannes Jacobus Matheus Baselmans	P 281487 P-0198.020-US	3046
909	7590	06/23/2004	EXAMINER	
PILLSBURY WINTHROP, LLP			MOHAMEDULLA, SALEHA R	
P.O. BOX 10500			ART UNIT	PAPER NUMBER
MCLEAN, VA 22102			1756	

DATE MAILED: 06/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/905,198

Applicant(s)

BASELMANS ET AL.

Examiner

Saleha R. Mohamedulla

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-63 is/are pending in the application.
- 4a) Of the above claim(s) 19 and 28-36 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18, 20-27 and 37-63 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-63 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 040204.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

The rejections of record are withdrawn in view of Applicant's remarks and amendments.

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-18, 20-27 and 37-63, drawn to a mask, a method of making the mask, and the method of using the mask, classified in class 430, subclass 5.
 - II. Claim 19, drawn to a device, classified in class 257, subclass 6.
 - III. Claims 28-36, drawn to a computer product, classified in class 716, subclass 19.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions of Group I and Group II are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions, have different functions. The integrated circuit is used in electrical equipment, such as a computer. Group II is a product-by-process claim. A mask is used to imprint patterns onto a semiconductor wafer. In addition, the integrated circuit can be made by a different process than the Group I processes, that is, the circuit can be made by a direct draw method.
3. Inventions of Group II and Group III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different functions. The integrated circuit is used in

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electrical equipment, such as a computer. Group II is a product-by-process claim. The computer product is simply a disk. The method recited does not limit the product. The disk is used to store information.

4. Inventions of Group I and Group III are unrelated. Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP § 806.04, MPEP § 808.01). In the instant case the different inventions have different functions. The computer product is simply a disk. The method recited does not limit the product. The disk is used to store information. A mask is used to imprint patterns onto a semiconductor wafer.

5. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

6. During a telephone conversation with Mr. Kerry Hartman on June 14, 2004 a provisional election was made to prosecute the invention of Group I, claims 1-18, 20-27 and 37-63.

Affirmation of this election must be made by applicant in replying to this Office action. Claims 19 and 28-36 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-18, 20-27 and 37-63 are rejected under 35 U.S.C. 102(b) as being anticipated by US# 5,585,210 to Lee et al.

9. Lee teaches a mask pattern for manufacturing a resist pattern of a semiconductor device through photolithography. An additional mask pattern is provided whose size is such that resist patterns are not formed after exposure on the spaces of the additional mask pattern. Therefore, the features are smaller than the resolution of light. These patterns enable the formation of specific patterns having an improved profile (Abstract, Figure 5). Therefore, Lee teaches the nonprinting assist features that mask an image of the array of isolated areas more symmetric. (Figures 14-20). Lee teaches chrome as the material for the mask pattern (col. 6, lines 8-13), therefore, Lee teaches that the isolated areas contrast with the background. Chrome is reflective and can cause phase shifts. Figure 5 shows that other isolated areas are positioned proximately at three corners of one isolated area and that assist features are positioned proximately at the other corner. The assist features prevent optical proximity effects, therefore, Lee teaches that the assist features reduce effects of odd aberrations. Lee also teaches using the mask to make a device using photolithographic techniques (col. 2, lines 5-25).

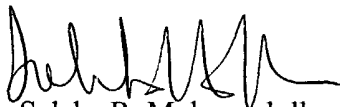
Conclusion

10. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Saleha Mohamedulla whose telephone number is (571) 272-1387. The Examiner can normally be reached Monday-Friday, from 8:00 AM to 4:30 PM.

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If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Mark Huff, can be reached on (571) 272-1385. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Saleha R. Mohamedulla
Patent Examiner
Technology Center 1700
June 21, 2004